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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/513,328	02/25/2000	Bruce W. Curtis	SUN1P701/P4732	7789

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EXAMINER

PRIETO, BEATRIZ

ART UNIT	PAPER NUMBER
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2142

12

DATE MAILED: 08/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/513,328

Applicant(s)

BRUCE W. CURTIS

Examiner

B. Prieto

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 8-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. This communication is in response to Amendment filed 7/7/03, claims 1-24 remain pending, of which claims 8-23 are withdrawn from consideration and claims 1-7 and 24, are hereby set forth for examination.

Claim Rejections - 35 USC § 103

2. Quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action may be found in previous office action.

3. Claims 1-7 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayes et. al. (Hayes) U.S. Patent No. 6,073,212 in view of Hunt U.S. Patent No. 6,192,398 in further view of BLUMENAU et. al. (Blumenau) U.S. Patent No. 6,260,120.

Regarding claim 1, Hayes teaches features of the invention substantially as claimed, teaching a system/method related to the management a cache memory system (abstract), including

determining whether a cache copy or content (response data) associated with a request is in the cache (cache-hit: col 3/lines 25-30, cache content information, col 2/lines 29-33);

obtaining an advisory state associated with the request from the cache associated with the determined existing cached copy or cached content (state col 6/lines 8-16);

reading (retrieving) the response data in accordance with the advisory state associated with the request (col 6/lines 8-16);

however the above prior art does not teach a ("advisory") state indicating that the response data is stored or not in the ("HTTP") cache, where each state of the indication is associated with to obtain permission from the web server ("HTTP daemon") in order to transmit the response data (e.g. response data stored in the HTTP cache) to the client or without obtaining permission from the HTTP daemon in order to transmit the response data (e.g. response data that has previously been cached) to the client;

Hunt teaches a system/method related to the management of a cache (124) in a cache memory system (col 3/lines 45-49) in a web server (116-118) (col 3/lines 30-44, 52-58, col 4/lines 46-48, Fig. 1), including:

receiving a HTTP request (step 506, Fig. 5A, col 1/lines 32-42, col 6/lines 21-24);

an indication ("state") indicating that the response data is stored or not in the ("HTTP") cache, including determining whether response data associated with the HTTP request is in the cache (step 508, Fig. 5A, col 6/lines 24-28);

obtaining an advisory state associated with the HTTP request from the HTTP cache associated with the cached response (step 518 of Fig. 5A, col 6/lines 29-32, 54-61, step 510 of Fig. 5A);

transmitting (loading) the response data in accordance with the advisory state associated with the HTTP request (Fig. 5B step 514);

however the above mentioned prior art do not explicitly teach an advisory state indicating whether or not permission from a process need to be obtained;

Blumenau teaches a system/method related to data processing networks and data storage subsystems (col 1/lines 9-14), including a flag ("advisory state") which when set (first state) the private/shared flag indicates that all resources are private and no permission is needed from a lock manager before the host controller port can accessing any of the resources its assigned resource list (col 15/lines 11-15);

It would have been obvious to one ordinary skilled in the art at the time the invention was made to combine Hayes and Hunt's teachings utilizing advisory states which indicate the state of the cached copy, particularly an indication as to whether the response data can be accessed by consulting with other processor(s) or the response data can be accessed without consulting with other processor(s), enabling a web server hosting a cache memory system for providing response data to HTTP request to obtain an advisory state indicating whether or not processors managing the cache memory system within the web server need to be enabled or instructed ("permitted") to access (e.g. reading/writing) in the cached data associated with the HTTP request, motivation would be to provide state and tag information to quickly service request to cached data, minimizing read and write latency to the caches, as taught by Hayes. It further would have been obvious to one ordinary skilled given Hayes suggestion of improving intercommunication between multi-processing computer systems including communication between processors and caches to implement Blumenau's teachings between computer processes including a flag ("advisory") state indicating whether or not permission from a process need to be obtained, motivation would be mechanism transparent to any high-level system procedure and the alleviates the burden on the host computer process and the storage system in managing access to stored resources.

Regarding claim 2, when the response is cached, sending an advisory request to a processor or program (HTTP daemon), indicating an action to be taken with the response data, and receiving the advise state from the processor or program (HTTP daemon) (Hayes: col 6/lines 8-16, Hunt: col 6/lines 37-42).

Regarding claim 3, transmitting the response data without modifying the response data in the HTTP cache when the advise state is in a first state (Hayes: retrieving or read response data: col 6/lines 8-16) transmitting (loading) the response data in accordance with the advisory state associated with the HTTP request (Hunt: Fig. 5B step 514, col 6/lines 58-61).

Regarding claim 4, update (modifying) the response data stored in the HTTP cache as specified by the advise state (Hunt: Fig. 5B, step 514, col 6/lines 37-42).

Regarding claim 5, removing one response data and the advisory state from the HTTP cache when the advise state is in a second state (Hunt: col 6/lines 54-col 7/line 2, flush).

Regarding claim 6, receiving response data from the HTTP daemon; and performing replacing the received from the HTTP daemon in the HTTP cache and replacing the advisory state in the HTTP cache with a another state (Hunt: Fig. 5B, step 516).

Regarding claim 7, transmitting the second response data when the advise state is in a fourth state without transmitting the response data in the HTTP cache and without storing the second response data in the HTTP cache (Hunt: col 7/lines 3-10).

Regarding claim 24, this claim comprises the computer-readable medium storing computer-readable instructions thereon, for performing the method discussed on claim 1, same rationale of rejection is applicable.

Citation of Pertinent Art:

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure; Copies of documents cited will be provided as set forth in MPEP§ 707.05(a):

U.S. Patent No. 5,630,166 (May 1997)

Gamache et. al. teach a system/method related to controlling requests for access to resources made by processors; including control mechanism to alleviate deadlock problems, wherein a semaphore manages control of the synchronization flags and gives permission to one processor if several request

access to the same critical region at the same time. When a processor finishes execution of a critical region, it informs the semaphore, which is responsible for conditioning the flags.

U.S. Patent No. 6,170,018 (Jan 2001)

Voll teaches a system/method related to doors are a safe IPC mechanism since the server thread executes in the context of the computer process which creates the door and the server thread (col 2/lines 58-60) used to facilitate a secure transfer of control and data between a client thread of a first computer process and a server thread of a second computer process (col 1/lines 23-27); doors are created by the server process through which each computer process must explicitly grant to other computer processes access to itself (col 3/lines 13-15); a state indicators e.g. field door-flags 1138 (Fig. 11) which represent respective components of the state of door (col 13/lines 12-17); this flag is set by the kernel 102 to indicate to computer process 110, e.g., through server thread 106, that no client processes currently have a reference to door 112 (col 13/lines 36-51); If flag Door_UnRef 1138B is set, and a field door_ulist 1130 data specifying an unreferenced invocation of door 112 doors created by a particular computer process, e.g., computer process 110, are to processed by a separate, dedicated thread of kernel 102, thereby avoiding process scheduling deadlocks (i.e. permission to access) in accessing door node 502A during the unreferenced invocations (col 24/lines 24-45); therefore teaches a flag indicating whether or not permission from a process ("HTTP daemon) needs to be obtained by indicating the is currently available thereby no permission to access is not required.

5. Applicant's arguments with respect to claims 1-7 and 24 been considered but are moot in view of the new ground(s) of rejection.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Prosecution of this application is closed by means of this final office action § 1.113, applicant may request continued examination of the application by filing a Request for Continued Examination of under 37 CFR § 1.114 and providing the corresponding fee set forth in § 1.17(e) for the submission of, but not limited to, new arguments, an information disclosure statement, an amendment to the written description, claims, drawings, or new evidence in support of patentability. Or applicant whose claims has been twice rejected, may appeal from the decision of the administrative patent judge to the Board of Patent Appeals and Interferences under 35 U.S.C. §134.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prieto, B. whose telephone number is (703) 305-0750. The Examiner can normally be reached on Monday-Friday from 6:00 to 3:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, Mark R. Powell can be reached on (703) 305-9703. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-6606. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800/4700.

Any response to this final action should be mailed to:

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Commissioner of Patents and Trademarks
Washington, D.C. 20231

or **Faxed to:**

(703) 746-7238 for TC 2100 Official After-final communications; please mark "EXPEDITED PROCEDURE", and
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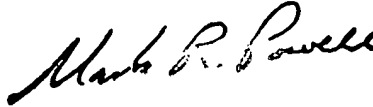
(703) 465-7240 for Non-Official, Draft communications, status query, please label "PROPOSED" or "DRAFT".

Or Telephone:

(703) 306-5631 for TC 2100 Customer Service Office

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington VA, Sixth Floor (Receptionist).


B. Prieto
Patent Examiner


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